GlobalSign®

Digital Signatures Made Easy

In today's digital age, most businesses are on board with going paperless. Whether transforming lab documents, engineering diagrams, contracts, or loan applications – the general consensus is paper is cumbersome, difficult to manage and expensive. That's why accurately digitizing content is so important.

Worldwide, our digital footprint is big – and only getting bigger. To ease the electronic transition, seamless and effective document processing is now a critical requirement for most businesses. And digital signatures hold the key.

Chapter 1: “Going Digital”

Analysts estimate there will be more than 40 trillion gigabytes of data in existence before end of this decade. It makes sense. Electronic documents are a requirement for business – driving more dynamic, collaborative and seamless workflows. Not only do they save time and money, but also allow organizations to work faster and smarter than ever before.

But the volume of content generated daily can be overwhelming. The general term is “content shock” - meaning the amount of information is quickly outpacing the market’s ability to consume it. Going one step further, many predictions indicate the rate of digital content growth is actually doubling every two years.

This creates a problem not only for data consumers, but also for those businesses attempting to quickly and easily process documents – whether it’s contracts, loan applications, or engineering plans. At the center of this issue are digital signatures.

Caution: Content Overload Ahead!

Chapter 2: The Concept

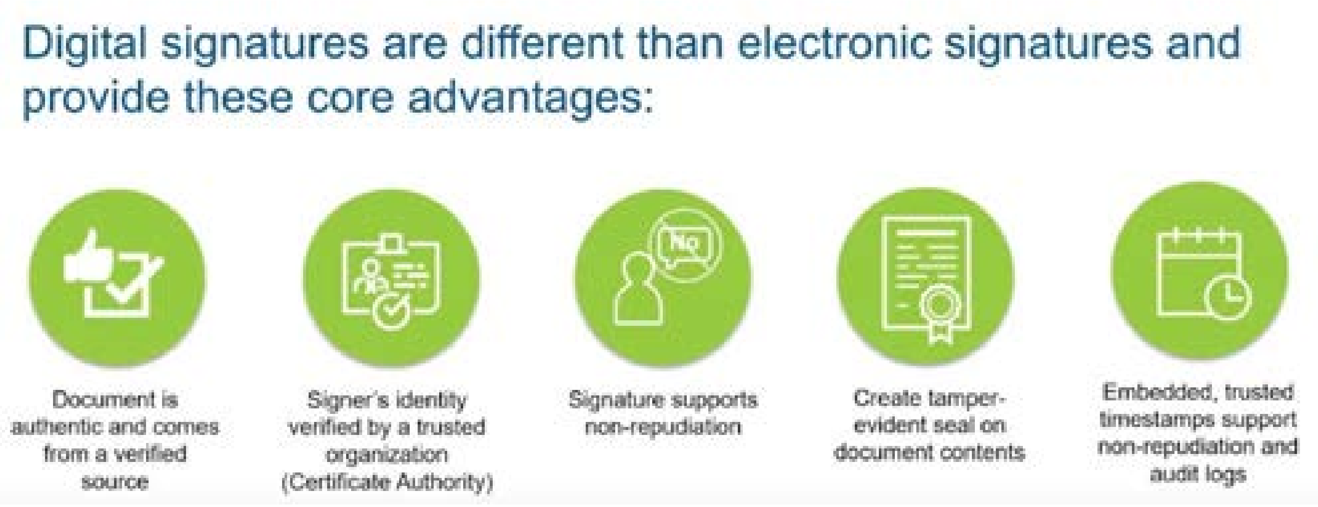
The theory behind digital signatures is generally understood, even if many can’t recite a formal definition. These electronic signatures effectively encrypt documents with unique digital codes that are hard to replicate, duplicate or compromise.

A strong digital signature ensures message contents aren’t altered during transmission. The process secures virtually any form of online content – from e-mails to online orders. The process involves a complex mathematical process integrating unique numerical values represented via character sequencing.

Only a computer is uniquely qualified to generate this type of combination.
But the route to adoption Digital signatures isn’t always easy. After all, there are a range of solutions available – creating confusion in the market.

Chapter 3: Deep Dive into Digital Signatures

Before adopting one solution over another – it's critical to resolve a common area of confusion: electronic and Digital signatures. Be aware – the two ARE NOT the same.



Digital signatures are different than electronic signatures and provide these core advantages:

- Document is authentic and comes from a verified source
- Signer's identity verified by a trusted organization (Certificate Authority)
- Signature supports non-repudiation
- Create tamper-evident seal on document contents
- Embedded, trusted timestamps support non-repudiation and audit logs

Digital signatures are a type of electronic signature backed by cryptographic technology. These offerings confirm a document is authentic and comes from a reliable source – because it is third-party verified. Users can interact with the signature and view the sender's identity. Non-repudiation isn't an issue, as the signer cannot deny signature due to the users' private, cryptographic key. Digital signatures are specifically designed to ensure document integrity – which is why the unique code derived from the document is so important.

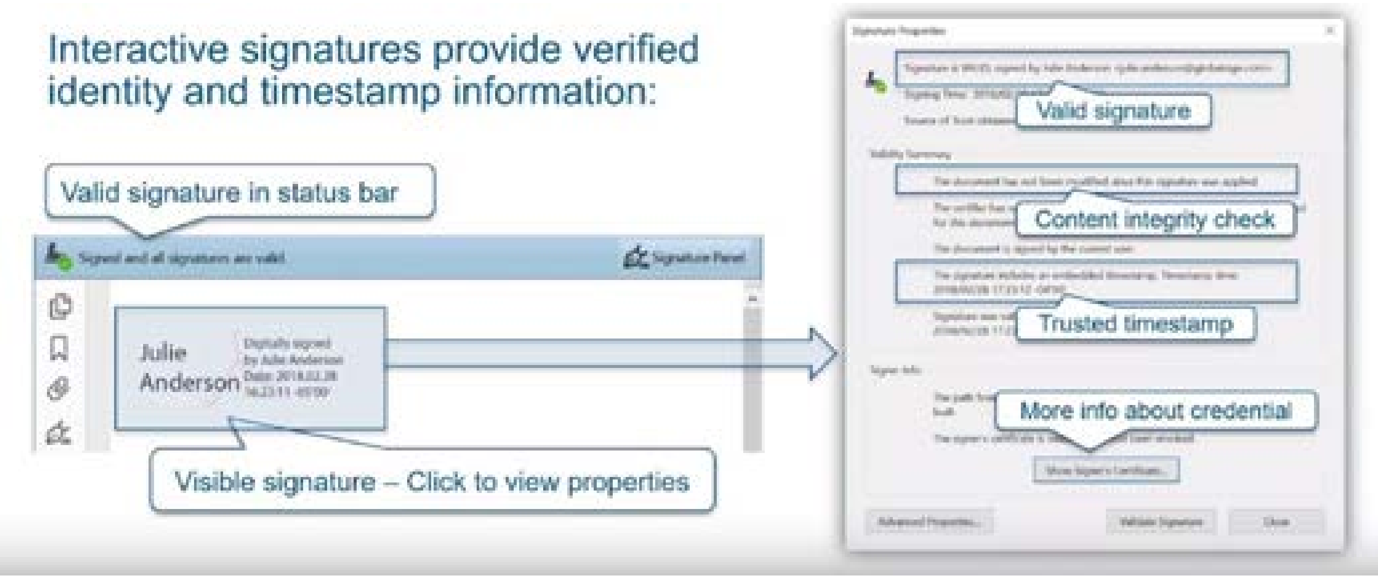
Another critical element of a digital signature is its ability to prove content has not been altered since signing. Strong solutions always include time-stamping – guaranteeing the signature is applied at a specific date/time. Taking it even further, new regulations are now emerging that designate the "type" of signature that's acceptable. In fact, eIDAS (electronic Identification, Authentication and trust Services) in Europe has already been updated and are building international standards and necessary benchmarks.

Digital signatures meet the requirements of many e-signature regulations:

1. Unique to the signer → Third party verified identity
2. Capable of identifying the signer → Third party verified identity
3. Under sole possession of the signer → Private key protection
4. Linked to the data so any change is detectable → Cryptographic hash check
5. Timestamped → Inclusion of trusted timestamp

Across digital signature solutions, yet another critical area is the "private key". Each Digital Signature is applied with each user's unique "private key" – meaning signatures are in the sole possession of the signer.

Finally, all trusted digital signatures are always backed by the two major root stores for documents – called the "Adobe Authorize Trust List" (AATL) and the "Microsoft Root Trust List". For signatories to gain public trust, the CA's roots are always included in these programs.



Interactive signatures provide verified identity and timestamp information:

Valid signature in status bar
Signed and all signatures are valid
Signature Panel
Julie Anderson
Digitally signed by Julie Anderson Date: 2018.02.28 16:23:11 -05'00'
Visible signature – Click to view properties
Signature Properties
Valid signature
Validity Summary
Content integrity check
Trusted timestamp
Signer Info
More info about credential
Show Signer's Certificate...
Advanced Properties...
Validate Signature
Close

Chapter 4: Market Challenges

While some digital signature solutions address some problems, not all fully adhere to mandatory compliance and legality requirements. That's important because ensuring Digital signatures are legally acceptable is Job No. 1.

Beyond legality, yet another roadblock is technology deployment. In other words, being 100 percent certain the solution is fully compatible with each business, technology infrastructure or formal processes. Another barrier is cost. Effective Digital signatures are powered by compliant cryptographic hardware – typically USB tokens or hardware secure models (HSM). This means a big investment in hardware maintenance plus token management.

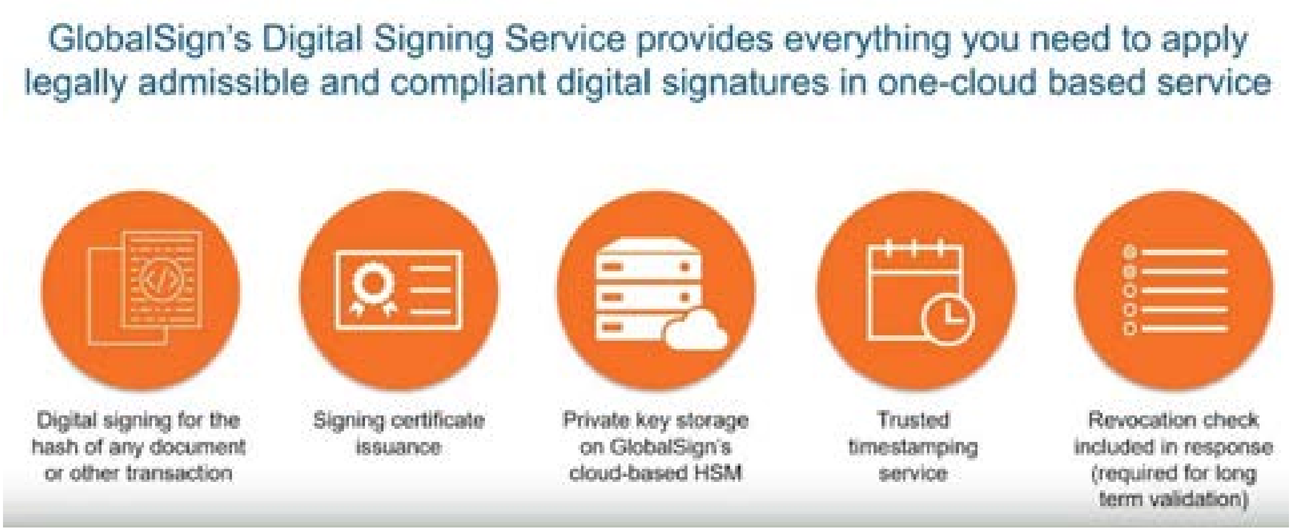
- **Confusion over which types of signature are available and accepted**
- **Hardware investment and maintenance**
- **Custom development work to integrate into existing workflows**
- **Internal cryptographic expertise**

True digital signatures are also hindered by document workflow or management systems. These infrastructures are essential to customizing and automating the process.

The fact is, not all Digital signatures are created equal. To be placed in that category, the process should contain a wide range of signature actions and safety levels – from checking a box or entering initials to using a cryptographic-based digital signature. The choices are virtually endless. So how do you know which digital signature solution is right for you?

Chapter 5: The Way Forward

Despite market confusion, there is most certainly a better way. The answer can be found in the power of cloud. Moving the digital signature process to the cloud is all that's required to build legal and compliant signatures into one platform. GlobalSign's Digital Signing Services (DSS) is one such cloud-based solution – incorporating everything from signature to confirmation, without ever leaving a customer's environment.

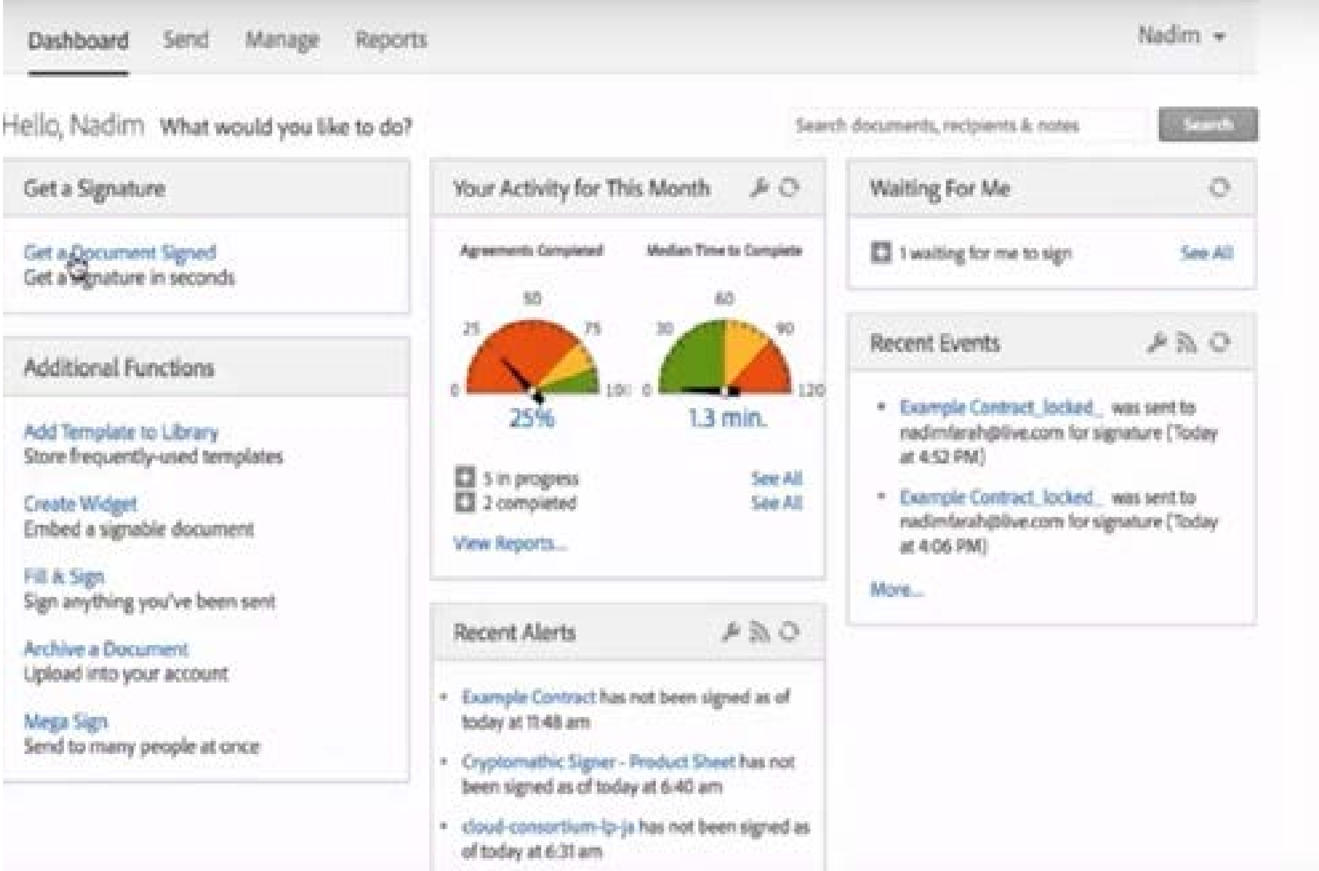

GlobalSign's Digital Signing Service provides everything you need to apply legally admissible and compliant digital signatures in one-cloud based service

Digital signing for the hash of any document or other transaction
Signing certificate issuance
Private key storage on GlobalSign's cloud-based HSM
Trusted timestamping service
Revocation check included in response (required for long term validation)

This highly scalable, cloud offering is an API-driven digital signing service eliminating implementation barriers and lowering total costs. Unlike traditional document signing products requiring tokens or on premise hardware security modules (HSMs), GlobalSign's Digital Signing Service is highly scalable and API-driven to easily integrate with commercial and custom document workflow solutions. This eliminates new requirements for security hardware.

Making it simple and cost-effective to add publicly-trusted digital signatures to any document and workflow solution, GlobalSign is easy-to-use – while still keeping pace with increased regulatory requirements to effectively perform in the world of electronic business.

GlobalSign's Digital Signing Service provides everything you need to apply legally admissible and compliant digital signatures in one-cloud based service



Dashboard Send Manage Reports Nadim

Hello, Nadim What would you like to do?

Search documents, recipients & notes Search

Get a Signature

Get a Document Signed
Get a signature in seconds

Additional Functions

Add Template to Library
Store frequently-used templates

Create Widget
Embed a signable document

Fill & Sign
Sign anything you've been sent

Archive a Document
Upload into your account

Mega Sign
Send to many people at once

Your Activity for This Month

Agreements Completed: 25%

Median Time to Complete: 1.3 min.

5 in progress See All
2 completed See All

View Reports...

Waiting For Me

1 waiting for me to sign See All

Recent Events

- Example Contract_locked_ was sent to nadimfarah@live.com for signature (Today at 4:52 PM)
- Example Contract_locked_ was sent to nadimfarah@live.com for signature (Today at 4:06 PM)

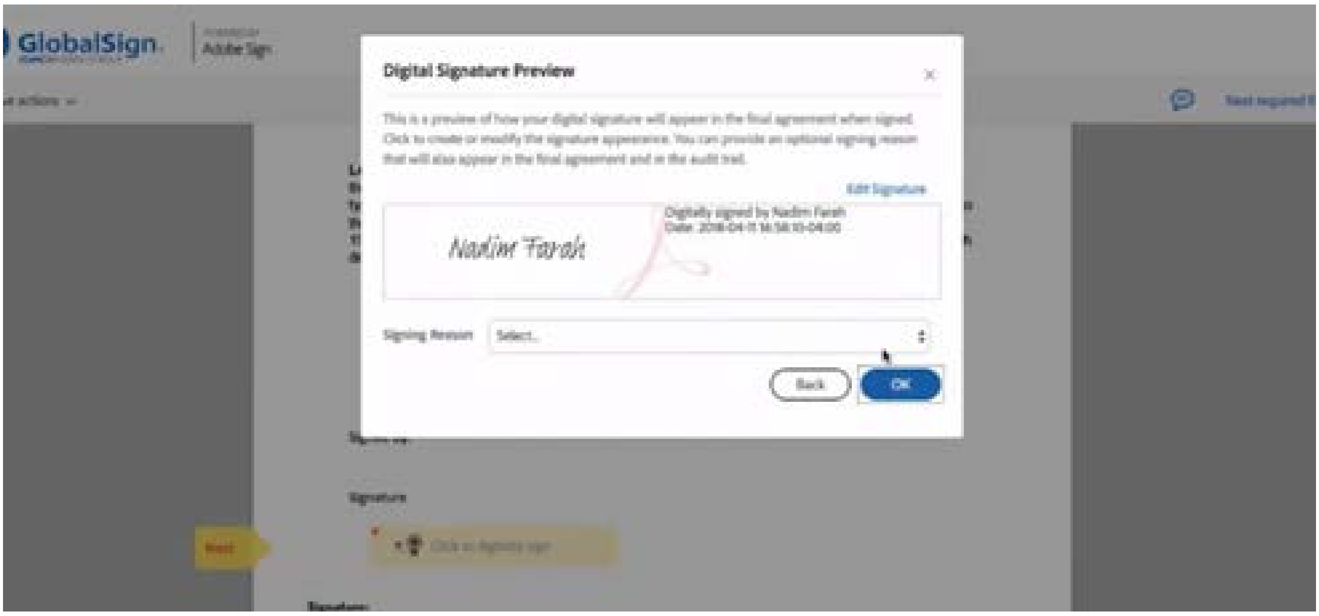
More...

Recent Alerts

- Example Contract has not been signed as of today at 11:48 am
- Cryptomathic Signer - Product Sheet has not been signed as of today at 6:40 am
- cloud-consortium-lp-ja has not been signed as of today at 6:31 am

GlobalSign's cloud-based solution is driven by an easy-to-use and intuitive dashboard to manage the entire digital signature lifecycle.

Built on a highly-scalable, cloud-based PKI platform, GlobalSign powers publicly-trusted digital signing while lowering barriers such as cost, maintenance, and internal expertise. GlobalSign handles all cryptographic components required for trusted signatures – such as signing, certificate issuance, key management, timestamping, and integrations with external verification services. The offering is



Digital Signature Preview

This is a preview of how your digital signature will appear in the final agreement when signed. Click to create or modify the signature appearance. You can provide an optional signing reason that will also appear in the final agreement and in the audit trail.

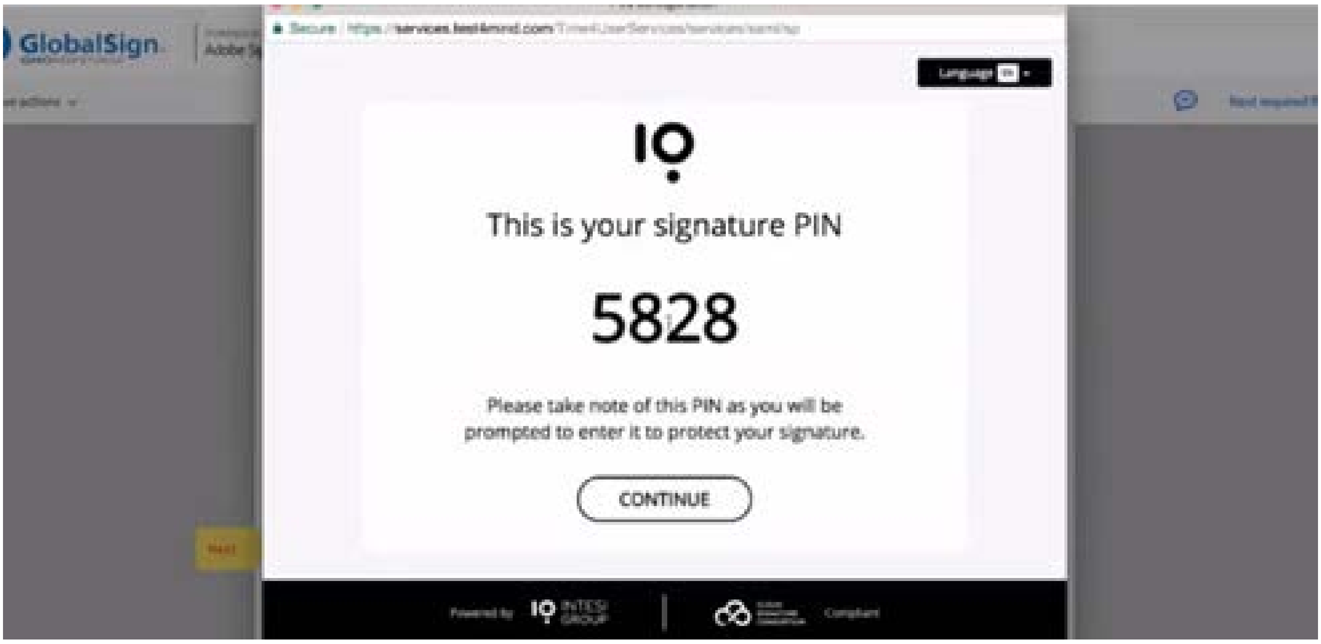
Edit Signature

Nadim Farah

Digitally signed by Nadim Farah
Date: 2018-04-11 16:58:10-04:00

Signing Reason: Select...

Digital Signatures can easily be previewed and imported in a matter of minutes



This is your signature PIN

5828

Please take note of this PIN as you will be prompted to enter it to protect your signature.

Security and encryption are incorporated at every level of the GlobalSign solution.

also the most secure with no database of private keys to compromise and no documents stored – even in hashed form.

Being a cloud-based API-driven solution, GlobalSign is easily integrated with any electronic document workflow solution. Companies with existing offerings – custom or commercial – can quickly implement the service. Additionally, GlobalSign partners with a range of document workflow providers such as Odyssey, Ascertia and Pitney Bowes – making implementation even more painless.

GlobalSign offers a wide range of technology options, from desktop to cloud and throughout the enterprise. Removing some of the biggest barriers to effective digital signatures, these solutions finally make it possible for businesses of any size to optimize document workflows, meet compliance standards and embrace the digital age.

Find out how GlobalSign can help you today. Watch our new Webinar on Digital Signatures today and then contact us for more….

GlobalSign®

Want to find out more about Digital Signatures?

Visit our DSS Product page

GlobalSign US Office
Two International Drive
Suite 150, Portsmouth
New Hampshire 03801
Phone: 603-570-7060
Email: sales-us@globalsign.com

GlobalSign UK Office
Springfield House,
Sandling Road, Maidstone,
Kent ME14 2LP
Phone: 01622 766766
Email: sales@globalsign.com